

Claims:

1. A method for changing at least one printing forme (36, 37) at a forme cylinder (31, 33) of a printing press while production is running, wherein the printing press has several forme cylinders (31, 33) with associated transfer cylinders (32, 34), wherein the respective forme cylinder (31, 33) is separated from the associated transfer cylinder (32, 34) for the length of time of the change of the printing forme (36, 37), characterized in that

- at least one chute (41, 42, 43, 44) is moved from a position of rest into a working position against the forme cylinder (31, 33) which is separated from its associated transfer cylinder (32, 34),

- at least one conveying device (49, 68) for picking up a printing forme (36, 37), which is to be removed from the forme cylinder (31, 33) and to be conveyed into the chute (41, 42), or a conveying device (54, 67) for feeding a printing forme (36, 37), made available in the chute (43, 44), to the forme cylinder (31, 33), is activated, and

- the separation of the forme cylinder (31, 33) from the transfer cylinder (32, 34), bringing the chute (41, 42, 43, 44) against the forme cylinder (31, 33), as well as the actuation of the conveying device (49, 54, 67, 68), is provided by remote control from a central control device assigned to the printing press.

2. The method in accordance with claim 1, characterized in that following the change of the printing forme (36, 37), the chute (41, 42, 43, 44) is returned from its work position into its position of rest, wherein the return of the chute

(41, 42, 43, 44) is performed by remote control from the control device.

3. The method in accordance with claim 1, characterized in that a printing forme (36, 37) to be conveyed to the forme cylinder (31, 33) is aligned in respect to the side register with the forme cylinder (31, 33), wherein the alignment of the printing forme (36, 37) to be conveyed to the forme cylinder (31, 33) is performed by remote control from the control device.

4. The method in accordance with claim 1, characterized in that the forme cylinder 31, 33) is aligned in respect to the side register with the chute (43, 44) with the ready printing forme (36, 37), wherein the alignment of the forme cylinder (31, 33) is performed by remote control from the control device.

5. The method in accordance with claim 1, characterized in that the printing forme (31, 33) is maintained on the forme cylinder (31, 33) by a holding means (21) which can be actuated by remote control from the control device.

6. A printing press with several forme cylinders (31, 33), each with an assigned rubber blanket cylinder (32, 34), wherein the rubber blanket cylinder (32, 34) transfers a print image to a material (46) to be imprinted, wherein during a change of at least one printing forme (36, 37) on at least one forme cylinder (31, 33) this forme cylinder (31, 33), which is separated from its assigned rubber blanket cylinder (32, 34) and/or the rubber blanket cylinder (32, 34) assigned to this forme cylinder (31, 33), is separated from the material (46) to be imprinted, characterized in that respectively at least

one chute (41, 42, 43, 44) with a printing forme (36, 37) ready for the respective forme cylinder (31, 33), or for receiving a printing forme (36, 37) to be removed from the respective forme cylinder (31, 33) is provided for several forme cylinders (31, 33), wherein in an operating state of the printing press while its production is running the chute (41, 42, 43, 44) which is assigned to the forme cylinder (31, 33) with the printing forme (36, 37) to be changed takes up its work position in respect to the forme cylinder 31, 33), while the chute (41, 42, 43, 44) assigned to a forme cylinder (31, 32) which is in production takes up its position of rest.

7. The printing press in accordance with claim 6, characterized in that a central control device assigned to the printing press for the remote-controlled changing of the at least one printing forme (36, 37) is provided, wherein the control device causes the chute (41, 42, 43, 44) to take up its work position in respect to the forme cylinder (31, 33) and changes the printing forme (36, 37) from the chute (41, 42, 43, 44) to the forme cylinder (31, 33), and vice versa.

8. The printing press in accordance with claim 6, characterized in that a conveying device (49, 54, 67, 68) which can be remote-controlled by the control device conveys the printing forme (36, 37) into the chute (41, 42, 43, 44).

9. The printing press in accordance with claim 6, characterized in that the chute (41, 42, 43, 44) is arranged in a printing forme magazine (38, 39), which can be brought to the forme cylinder (31, 33).

10. The printing press in accordance with claim 6, characterized in that at least one forme cylinder (31, 33)

more than required for the running production is provided, and that the chute (41, 42, 43, 44) for changing at least one printing forme (36, 37) during running production of the printing press has been brought to this cylinder (31, 33) in its work position in respect to the forme cylinder (31, 33).

11. The printing press in accordance with claim 6, characterized in that the printing press has at least one printing group with a first pair of cylinders rolling off on each other and consisting of a first forme cylinder (31) and a first rubber blanket cylinder (32), and a second pair of cylinders rolling off on each other and consisting of a second forme cylinder (33) and a second rubber blanket cylinder (34), wherein the material (46) to be imprinted is passed between the two rubber blanket cylinders (32, 34) placed against each other, wherein a first chute (41, 43) is assigned to the first forme cylinder (31) and a second chute (42, 44) to the second forme cylinder (33), wherein for changing a printing forme (36, 37) the chute (41, 42, 43, 44) is placed into its work position against the forme cylinder (31, 33), which is separated from its assigned rubber blanket cylinder (32, 34) and/or whose rubber blanket cylinder (32, 34) is separated from the material (46) to be imprinted.

12. The printing press in accordance with claim 11, characterized in that the printing press has at least one printing group with two pairs of forme cylinders (31, 33) and two pairs of rubber blanket cylinders (32, 34) more than is required for the running production, and that for changing at least one printing forme (36, 37) during running production of the printing press the chute (41, 42, 43, 44) can be brought against at least one of these forme cylinders (31, 33) into its work position in respect to the respective forme cylinder

(31, 32),

13. The printing press in accordance with claim 12, characterized in that in the printing group not required for the running production the chute (41, 42, 43, 44) at both forme cylinders (31, 33) can be brought into its work position in respect to the respective forme cylinder (31, 33) for changing a printing forme (36, 37).

14. The printing press in accordance with claim 11, characterized in that the rubber blanket cylinders (32, 34) of the printing group are substantially arranged above each other.

15. The printing press in accordance with claim 11, characterized in that the chute (41, 43) assigned to the first forme cylinder (31) is arranged underneath the guide device for the material (46) to be imprinted, and the chute (42, 44) assigned to the second forme cylinder (33) is arranged below the guide device for the material (46) to be imprinted.

16. The printing press in accordance with claim 15, characterized in that at least the chute (42, 44) arranged above the guide device of the material (46) to be imprinted can be moved from its position of rest to its work position and can be brought to the second forme cylinder (33).

17. The printing press in accordance with claim 16, characterized in that the position of rest of the chute (42, 44) above the printing group and the work position are arranged at a distance (a39) in front of the second forme cylinder (33), wherein the distance (a39) is less than the length (L) of the printing forme (36, 37).

18. The printing press in accordance with claim 7, characterized in that the control device is a control console assigned to the printing press.

19. The printing press in accordance with claim 6, characterized in that the material (46) to be imprinted is a paper web.

20. The printing press in accordance with claim 11, characterized in that the printing press has several printing groups for different colored printing inks.

21. The printing press in accordance with claim 6, characterized in that the printing press is a web-fed offset jobbing printing press.

22. The printing press in accordance with claim 6, characterized in that the printing forme (31, 33) has several print image positions.

23. The printing press in accordance with claim 22, characterized in that the print image positions are different from each other.

24. The printing press in accordance with claim 6, characterized in that the number of revolutions of the forme cylinder (31, 33) with the printing formes (36, 37) to be changed is very much lower than the number of revolutions of the forme cylinders (31, 33) engaged in production.

25. The printing press in accordance with claim 11, characterized in that at least five printing groups are arranged, that respectively the first chute (41, 43) and the

WO 2004/020203
PCT/DE2003/002636

second chute (42, 44) of at least four printing groups are arranged in the position of rest, and that respectively the first chute (41, 43) and the second chute (42, 44) of at least one printing group is arranged in the work position.